

SHOP MANUAL

BINDER

GRADER

GALION MANUFACTURING COMPANY, Galion, Ohio 44833, U.S.A.
DIVISION OF DRESSER INDUSTRIES, INC.

FILE

E

SECTION

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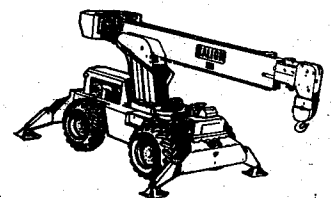
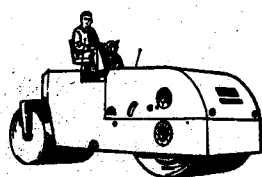
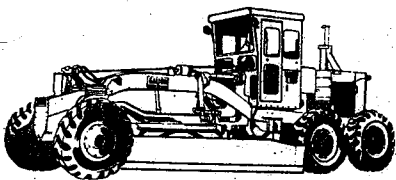
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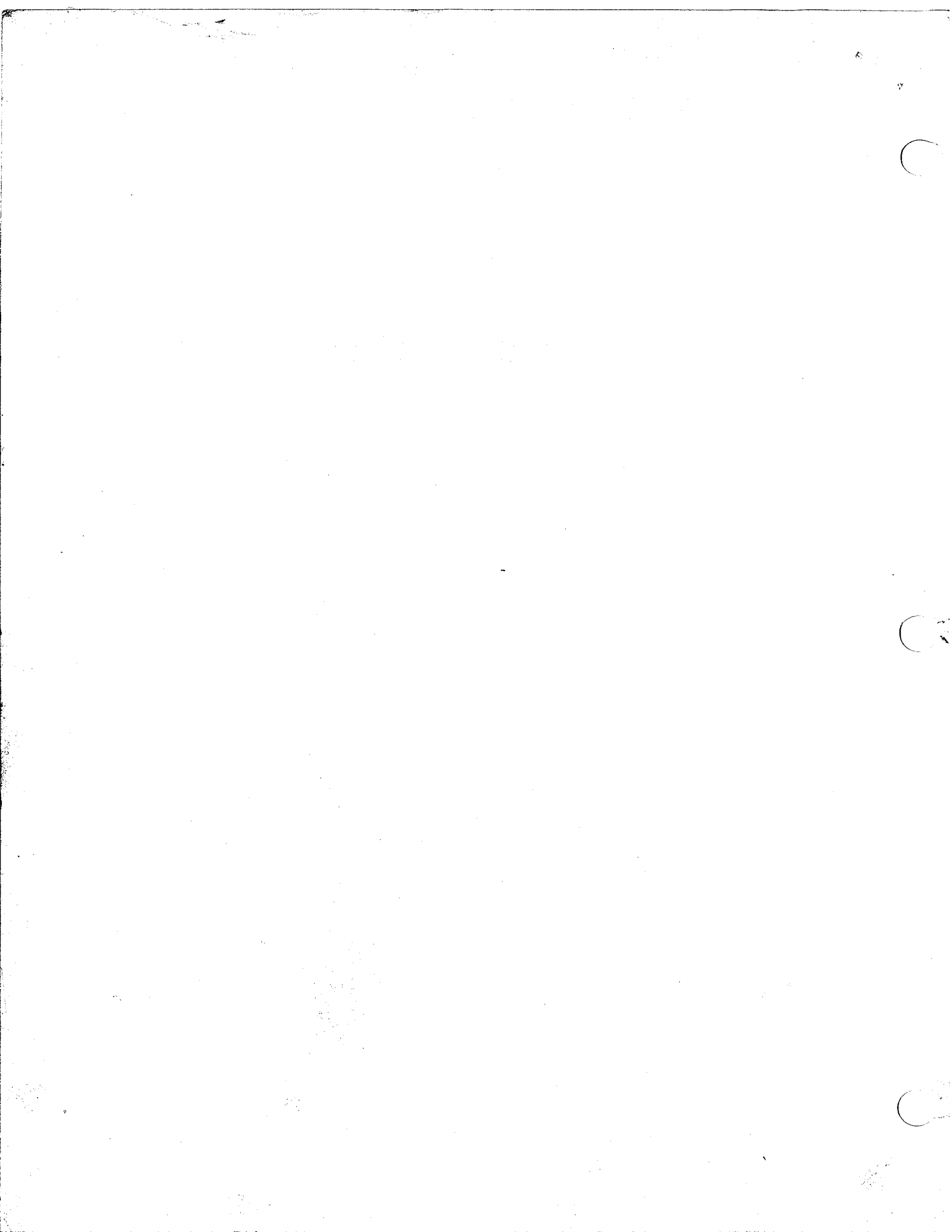
STEERING FLOW REGULATOR & RELIEF VALVE ASSEMBLY

APPLICABLE TO THE FOLLOWING GALION MOTOR GRADERS:

<u>MODEL</u>	<u>SERIAL NO. OLD STYLE (FIGURE 2)</u>	<u>SERIAL NO. NEW STYLE (FIGURE 1)</u>
T 600 B	1501-1745	1745 & Up
T 500 A & L	2601-3315	3315 & Up
T 400 A	----	1001 & Up
160 B & L	2101-2515	2515 & Up
160 C	----	2706 & Up
118 C	----	10750 & Up
118 B & 104 B	7601-9939	9939 & Up
104 HB	7619-9955	9955 & Up

R3





FLOW REGULATOR & RELIEF VALVE ASSEMBLY

The flow divider assembly as used on Galion Graders has three functions in the grader hydraulic system:

1. Provides continuous delivery of a fixed gallonage of hydraulic oil to the power booster steering mechanism.
 - a. If four wheel power service brakes are used on the grader, the flow divider also supplies hydraulic oil to the power booster on the brake master cylinder.
2. Provides maximum hydraulic pressure regulation in the power booster steering.
3. Provides maximum hydraulic pressure regulation in the grader power control system.

It is imperative that certain precautions be observed when servicing this unit.

1. DO NOT AT ANY TIME ALLOW FOREIGN MATTER TO ENTER ANY PART OF THIS ASSEMBLY!
2. Servicing of the flow regulator assembly must be done in a very clean area.
3. At the time of the flow regulator disassembly, relief valves (items 1 & 4, Figure 1) must be removed as units. DO NOT DISASSEMBLE RELIEF VALVE UNITS. These valves are sealed and pre-set and should never have the seal wires broken or tampered with.
4. Clean all metal components in solvent and dry with compressed air.
5. Use new O-rings (items 2, 3, and 12, Figure 1) at time of assembly.
6. Coat all components, including O-rings, with hydraulic oil or other suitable lubricant prior to assembly.
7. The honed assembly (items 5 and 11, Figure 1) is replaceable only as an assembly. Do not separate or mix with any other honed assemblies.
8. If service to the relief valves is indicated, replace with like part numbered valves.

CAUTION: WHENEVER RELIEF VALVES ARE REMOVED FROM THE FLOW DIVIDER, THE O-RINGS MUST BE REPLACED BEFORE RE-ASSEMBLY.

9. For service parts, refer to appropriate GALION Parts Catalog.

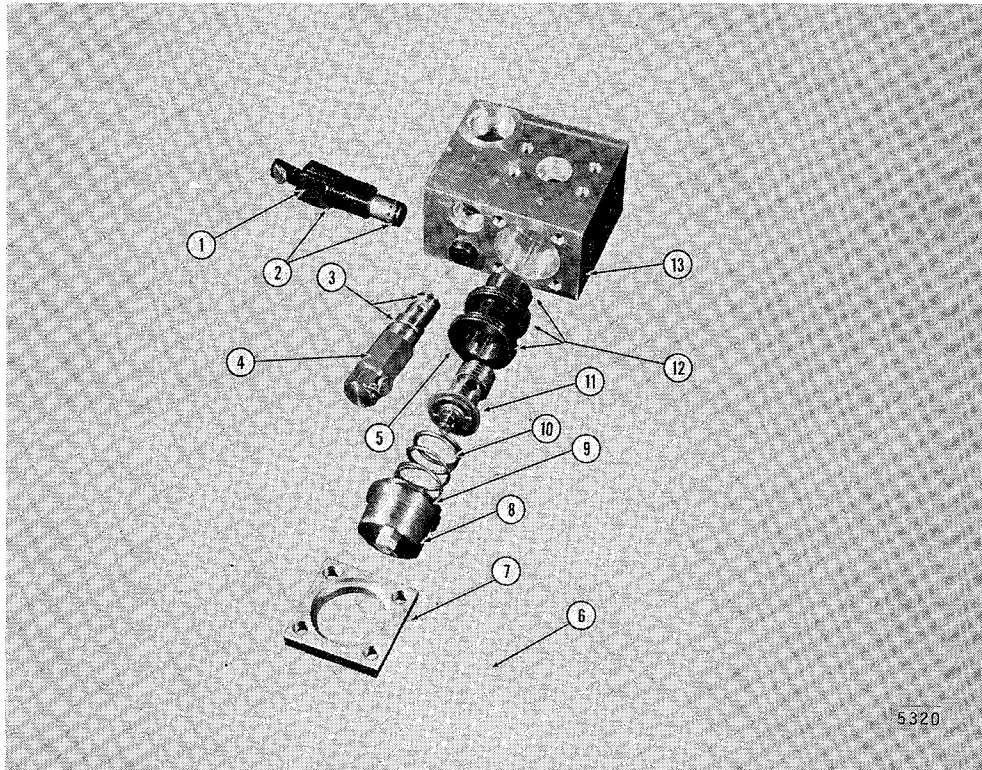


Figure 1 (NEW STYLE)



Figure 2 (OLD SYTLE)

DISASSEMBLY

Disassemble in order indicated in Figure 1.

Before removing plate (7) from flow divider body, scribe a mark on the plate and the flow divider body so that at the time of assembly it is replaced the same way it was removed.

To remove honed assembly (5), strike face of body (13) sharply against wooden surface.

Clean all parts with solvent and dry with compressed air.

ASSEMBLY

1. After parts have been dried with compressed air, coat all parts with hydraulic oil.
2. Install new O-rings (12) on honed assembly (5). Install honed assembly (5-11) into flow regulator body (13). Press honed assembly into position in body, making certain that it seats in the bottom of flow regulator body.
3. Install spring (10).
4. Install O-ring (9) in bore of housing (13). Place cap (8) over spring (10).
5. Position plate (7) over housing (8) and draw down evenly with four cap screws (6). Torque cap screws to 25 foot pounds.
6. Relief valve assemblies (1 and 4) must be replaced as assemblies and service is limited to replacing O-rings (2 and 3).

If your grader is equipped with the flow regulator, shown in Figure 2 which contains the honed assembly D-84401, you are able to convert this honed assembly to D-101047. The new honed assembly has a baffle over a bleeder hole to eliminate excessive noise created by the shuttling of the honed assembly. Order the conversion kit D-100334 which includes cap with plug (Figure 1, point 8) O-ring (9), new honed assembly (5 and 11) and three O-rings (12).

For trouble shooting the hydraulic system in which the flow regulator valve is installed, refer to File E, Section 17 of this manual.

